

REMARKS

Claims 4-19 are pending.

No new subject matter has been added to the specification or claims.

Support for the amendment for "one-to-one mapping" is found on page 16 lines 12-13, which reads: "just like in standard error diffusion, the processing of an image consists of processing the image line by line and pixel by pixel". What is meant by this is explained on page 15, lines 11-12: "the error diffusion process will transform every input $P(x,y)$ pixel into a halftone pixel $H(x,y)$ ". In other words there is a one-to-one mapping of input pixels having coordinates (x,y) to output pixels having corresponding coordinates (x,y) .

Claim 16 was rejected under 35 U.S.C. §112, first paragraph as failing to comply with the written description requirement.

The rejected language referring to "...the quantization vectors being N-dimensional, N being an integer value greater than zero" has been omitted from the claims. Thus, the amendment overcomes the above §112 rejection.

Claims 4-19 were rejected under 35 U.S.C. §103 over U.S. Patent no. 7,031,025 to He et al. in view of U.S. Patent no. 5,621,546 Klassen et al. This rejection is respectfully traversed as argued below in view of amended independent claim 16.

In determining a case for obviousness under 35 U.S.C. §103, it is necessary to show that the combination of prior art teachings is proper, and that those teachings constitute an improvement which results from the predictable use of prior art elements according to their established functions.

The Applicant disagrees with some of the substantive factual findings by the Office and traverses those findings based on the following reasoned statements.

For the purpose of "non-obviousness" the teachings on vector error diffusion in Klassen are actually not relevant, since the current invention can be implemented as either a vector error diffusion (claim 16) or as a scalar error diffusion (dependent claim 4, dimensionality of the vector equals 1). Both are simply variations of the same invention on "sub-dot phase modulation".

He differs from the current invention, since in the current invention for every output pixel an output pixel value combination of a cluster of pixels is changed as a function of a modified input pixel to which an error was added. This specific feature or improvement is not found in He, Klassen or any of the other prior art documents. Thus even if Klassen and He were combined, the result would not be the invention as claimed.

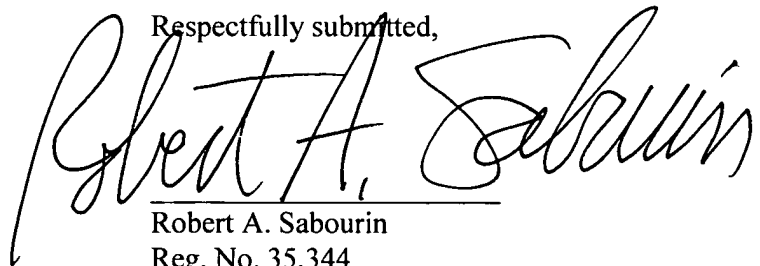
The prior art made of record and not relied upon has been reviewed but is not considered material to the patentability of the invention.

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It should be noted that the above arguments are directed towards certain patentable distinctions between the claims and the prior art cited. However, the patentable distinctions between the pending claims and the prior art cited are not necessarily limited to those discussed above.

In view of the foregoing remarks and amendments, it is respectfully submitted that each rejection of the Office Action has been addressed and overcome so that this application is now in condition for allowance. The Examiner is respectfully requested to reconsider the application, withdraw the rejections and/or objections, and pass the application to issue. Should questions arise during examination, the Examiner is welcome to contact the applicant's attorney as listed below.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Robert A. Sabourin", is written over a horizontal line.

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